

MARE ISLAND NAVAL SHIPYARD, FIREHOUSE ANNEX
Vallejo (Central Fire Station) (Building 99A)
Solano County
California

HABS No. CA-1543-J

HABS
CAL,
48-MARI,
1-J-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Western Region
Department of the Interior
San Francisco, California 94102

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HISTORIC AMERICAN BUILDING SURVEY (HABS)

MARE ISLAND NAVAL SHIPYARD,
FIRE HOUSE ANNEX (BUILDING 99A, CENTRAL FIRE STATION)

HABS NO. CA-2225 *CA-1543-J*

Location: Southwest corner of California Avenue
and 7th Street
Mare Island Naval Shipyard
Vallejo
Solano County
California

United States Geological Survey (U.S.G.S.),
Mare Island Quadrangle (7.5)

Universal Transverse Mercator Coordinates:
10.564100 - 4216900

Present Owner: Department of the Navy
Mare Island Naval Shipyard
Vallejo, California 94592-5100

Present Use: Central Fire Station. Proposed for abandonment in the third
quarter of calendar year 1991, and eventual demolition.

Statement of
Significance: Building 99 was constructed in 1905 on the southwest corner
of California Avenue and 7th Street at its present site. The
facade of Building 99A, like the three south of it on the
west side of California Avenue, extend the mixture of
materials and small scale found in the facades of the
buildings on the central entrance to the "Shipyard Historical
District" of the Mare Island Naval Shipyard National Historic
Landmark which, together, make an important contribution to
the major entrance to this historic district.

Prepared by: Mr. S. R. Black
Title: Architect/General Engineer
Affiliation: Mare Island Naval Shipyard, Public Works Department/Engineering
Division/Facilities Planning Branch, Code 442

PART I - HISTORICAL INFORMATION:

A. Physical History:

1. Date of Erection: Building 99A, one of two buildings forming the Central Fire Station (the other being Building 99 - documented as HABS No. CA-2294), was constructed circa 1905 on the southwest corner of California Street (formerly Dock Street) and Seventh Street. The period of construction is based on the data of the earliest original construction drawing on file. Also, a 1904 Shipyard map does not show Building 99A in place.

2. Architect: The design of Building 99A is attributed to Commander Henry H. Rousseau, Civil Engineering Corps, United States Navy, who served as the Mare Island Navy Yard's Civil Engineer (now Public Works Officer) from 1903 to 1906, following Commander R. C. Hollyday. Henry H. Rousseau was born in Troy, New York in 1870 and completed a Bachelor of Civil Engineering at Rensselaer Polytechnic Institute in 1891. He joined the Navy Civil Engineering Corps in 1898 with the rank of Lieutenant, Jr. Grade. In 1912 he followed the footsteps of Captain Hollyday and was appointed Chief of the Bureau of Yards and Docks. It was a position he did not hold long, for within the year he was appointed to serve on the Isthmuthian Canal Commission. As the only engineer on the Commission, he directed the Terminal construction and served as director of the Panama Railroad Company. Rousseau, recipient of the Navy Cross, was made a Rear Admiral in 1915 and died in 1930 while still in the service of the Navy.

3. Original and Subsequent Owners: Building 99A was constructed through a Congressional appropriation on Federal property under the cognizance of the Department of the Navy. The Shipyard is recorded (July 12, 1978) as U.S. Government property with the Office of the Solano County Recorder, Fairfield, California, as Parcel No. 67-010-030 in Book 56594 of these records. The title and ownership of this building has rested with the Department of the Navy since it was originally constructed in 1905.

4. Building, Contractor, Suppliers: Building 99A was constructed by Shipyard Public Works employees. With only minimal historical record data available for review, it can only be assumed that fabrication of building components, such as roof trusses, was performed on the yard from commercially available building materials.

5. Original Plans and Construction: Only one original drawing, dating back to 1905 and signed by CDR Rousseau, is on file in the Shipyard's Public Works Engineering Division Plan Files. The original cost of construction in 1905 is \$4,000 as recorded in Shipyard Property Record 200175. This drawing depicts Building 99A as a wood post and truss framed structure, with panel and end walls additionally stud framed and covered with industrial grade corrugated metal sheeting. A photocopy of this drawing is included.

The original drawing refers to Building 99A as an "engine house and hose tower." Since only one fire station existed on Mare Island prior to 1941 (south and north fire stations being built in 1941), it is surmised that this

building was built to garage additional fire fighting vehicles with the main fire house being Building 99, located approximately 150 feet south and across California Avenue. With the relocation of Building 99 to its present site just south of Building 99A in 1916, the later history of Building 99A parallels that of Building 99 from that point on as both structures became known as the Central Fire Station.

6. Alterations and Additions: The original drawing available shows that a 55'-0" high hose tower was part of the original construction. The top 15 feet of this tower was capped by a series of moldings forming an entablature with a hipped roof of tin. The floor plan footprint is square, being 8'-0" by 8'-0". A later alteration (no date) removed the upper 20 foot portion of the tower which was then roofed by a simple shed roof of corrugated metal. Other present day architectural exterior features appear to be consistent with original construction details, other than the addition of attic louvers (approximately 24" wide x 30" high) in each end wall just below the ridge line. No dates are recorded for either of these alterations.

Other significant alterations occurred in:

Circa 1967 ... Enclosure of the alley between Buildings 99 and 99A to create space for a foyer and two first floor restrooms.

Circa 1980 ... Installation of breathing air bottle charging facilities. It is noted that the drawings for this installation make note of the hose tower being used for a "respirator test room."

1982 ... Installation of smoke detectors. It is noted that drawings for this installation refer to the hose tower as "storage" and the earlier first floor engine rooms (2 stalls for fire engines) are shown subdivided into locker, storage, and dormitory rooms.

1990 ... The building was reroofed.

B. Historical Context: Building 99A is listed as a "Category III *" building, located within the "Shipyard Historical District" as identified in the National Register of Historic Places Inventory - Nominating Form.

Although the original construction drawing indicates that Building 99A was built as an engine house and hose tower, reference is made in the pamphlet "Historical Facts of Mare Island Fire Department, Mare Island Naval Shipyard" to its original use as a packing shed. Reference is also made to ...

* CATEGORY III: Contributing to the National Register Historic District but not to the National Historic Landmark.

"An interesting sidelight to this building's history is that a tailor was allowed to use a corner of the building as a shop. He had no status with the Navy other than he would make clothes and uniforms for the Yard workmen and Navy personnel."

Research reveals no supporting source for this statement. It is conjectured that, after being constructed, Building 99A was used for some other short-term emergency use (perhaps as a result of the 1906 earthquake) until such time that Building 99 was moved (1916) and both structures became collectively the "Central Fire Station."

Another sidelight is that circa 1906, Fire Chief and Mrs. John O'Hara ran a small, exclusive lunchroom on the second floor (perhaps to augment income). This would tend to support its original use as a fire house rather than as a packing shed.

The historical significance of Building 99A is closely linked to adjacent Building 99 and other immediate buildings in this district, as noted below.

"The facade of Building 99A, like the three south of it on the west side of California, extend the mixture of materials and small scale found in the facades of the buildings on the central entrance to the "Shipyard's Historical District", which together make an important contribution to the major entrance to this historic district."

PART II - ARCHITECTURAL SURVEY:

A. General Statement: Building 99A is a two-story post and truss, wood-framed building measuring 37'-2" across the eastern elevation and 39'-2" along the side. An 8'-0" x 8'-0" hose tower is located externally to the main floor at the southeast corner of the building.

1. Architectural Character: Its architectural contribution to the district, as indicated in the Nominating Form, appears to be in its early example of a small scale, industrial metal sided building, located such as to be a prelude to other larger, similarly constructed buildings within the historical district.

2. Condition of Fabric: The building's overall condition may be summarized as fair to poor. Substantial structural modifications would be required, amounting to a virtual complete rebuilding of the structure, to resist seismic forces should the building be retained for continued use.

B. Description of Exterior:

1. Overall Dimensions: Building 99A measures 37'-2" across the front, or eastern, elevation at the first floor and 39'-2" along the side. In addition, an 8'-0" square hose tower is located external to the building at the southeast corner. This tower was originally 55'-0" tall; however, subsequent alterations reduced the height to approximately 35'-0".

The height above the first floor to the eave of the roof is 29'-0". The gable roof rises another 12' to the ridge and has a slope of approximately 2 to 1 (run to rise).

This building is a two-story building with the second floor being 17'-0" above the first floor. The height to the bottom chord of the roof truss is 12'-0" above the second floor.

Three roof trusses span the long (transverse) dimension of the building (north-south) create an unfinished attic area which has never been used. The ground floor, as a result, is divided into 4 transverse column bays.

2. Foundation: The foundation of Building 99A is a 4½" thick concrete slab on grade (no pile supports). Exterior framing (posts and studs) are framed upon a concrete perimeter curb varying in height to a maximum of 4'-0" above first floor level at the west wall. Large, 10" x 10" wood columns are also equally spaced along the east-west centerline supporting the second floor joists at mid-span, subdividing the first floor into 4 equal transverse bays. These interior posts rest on 2'-0" square concrete piers cast integral with the floor slab.

The floor of the hose tower and related foundation are of similar construction with the exception that a centrally placed floor drain is in place and the floor slopes to this drain nominally.

3. Walls: Exterior walls of the main building are framed by 2" x 6" studs at 24" (±) centers. The side walls (north and south) elevations also include 3 - 6" x 6" wood columns, equally spaced, to support the 3 roof trusses. The east and west elevations are fully framed to the roof line plate (i.e., no trusses). All walls are sheathed on the exterior with galvanized corrugated steel sheeting. The east wall is penetrated by a pair of large double, swinging wood doors, 10' high x 10' wide. These doors are, in turn, topped by a tripartite transom with a single, center 12-lite section and 6-lite sections on either side. The centerline of each door opening is 9'-8" in from the northeast and southeast corners of the building.

Located vertically in line with these doors, at the second floor, are paired 12-lite over 12-lite double hung wood windows. Each window measures 50" across x 62" high. The west wall has similarly placed glazing with the exception that windows are 4-lite over 4-lite wood double hung windows, paired, and that windows are at the first floor instead of doors/transoms as are on the east elevation. These windows measure 32" across x 80" high. Similar window units are functionally placed in the north and south elevations in each column bay.

Exterior walls of the hose tower are of similar construction. First floor openings exist for two personnel entry doors. An opening for ventilation also exists approximately at the same level as the second floor windows in the east and west facing elevations. Large louvered sections also existed at the time of construction in the upper 20' (later demolished).

4. Structural System, Framing: Building 99A is a wood post and truss framed building with a gable roof (ridge running in an east-west direction). The first floor is divided down the east-west longitudinal centerline by 3 equally spaced 10" x 10" columns supporting the wood-framed second floor. Three roof trusses (common truss) are on the same transverse centerline as these columns and are supported on 6" x 6" columns in the north and south walls. The trusses are secured to the top of the column and related horizontal double 2" x 6" plate by bolted connections through a 4" x 6" x 1/2" steel angle bracket. Trusses are further connected to the posts by a diagonal double 2" x 6" wood brace.

End and side walls are further framed and blocked with 2" x 6" studs. The end walls (east and west elevations) are fully framed to the roof line by 2" x 6" studs. The truss structure is made up of 6" x 6" wood top and bottom chords. Compression web members are 4" x 6" diagonal wood members keyed into the chords. Vertical 7/8" diameter steel rods are used as web tension members. Each truss is divided into 6 panels, 6'-2" wide each. The second floor ceiling is supported on 2" x 6" ceiling joists, blocked, running perpendicular to the direction of the trusses at about 36" centers. Wood nailers measuring 2" x 2" are spiked to each side of the bottom chord to support ceiling panels.

The second floor is supported by the aforementioned interior columns and 2" x 12" joists placed at 16" centers. The roof is supported on 2" x 8" purlins running perpendicular to the span direction of the trusses. Purlins are placed directly on the top chord and covered by galvanized steel corrugated sheeting. Trim, eaves, and rake are faced in 1" x 10" or similar material.

The framing of the hose tower consists of 6" x 6" columns in each of the floor corners extending all the way to the roof plate. Remaining framing is of 2" x 6" studs. Cross ("X") bracing made up of 1" x 6" single braces are placed throughout the height of the tower in all 4 elevations. The tower structure is secured (no details available) to the main building at the eave and second floor lines.

5. Porches, Stoops, Balconies, Bulkheads: There are no porches, stoops, balconies, or bulkheads incorporated into the design of this building.

6. Chimneys: None.

7. Openings:

a. Doorways and Doors: The front elevation (east) is penetrated at the first floor level by two 10'-0" x 16'-0" openings. These openings are enclosed by wood, paneled double doors 10' high topped by a tripartite transom, described elsewhere in this survey. The upper half of the doors contain a 12-lite section (each half). The only other door opening in the exterior wall is a personnel door accessing through the south wall into the interior of the hose tower. A second personnel door into the hose tower exists on the east elevation, with the upper half of the door a 6-lite glazed section. This door

was originally topped by a 9-lite transom, vertical scale and detail matching that of the main building. This transom was removed (no date) and replaced by louvers, most likely to improve ventilation within this tower.

b. Windows and Shutters: All windows in the main building are wood, double hung windows. Windows on the east elevation are 12-lite over 12-lite while all other windows are 4-lite over 4-lite. No shutters were ever included in the original design.

8. Roof:

a. Shape, Covering: The roof of Building 99A is a gable roof with corrugated galvanized metal sheathing. The hose tower is topped by a corrugated metal shed roof.

b. Cornice, Eaves: Roof eaves, cornices, and rake are of wood construction. Galvanized steel gutters and downspouts are also in place.

c. Dormers, Cupolas, Towers: A previously described hose tower exists at the southeast corner of the site. The roof of this tower is a simple shed roof of corrugated metal. Originally the tower was higher, with a more elaborate entablature, east and west facing louvered wall panels, and a metal covered hipped roof. No reason or date has been found for shortening the tower, although consideration of the relatively light framing, etc. of this tower points to possible damage during a seismic event. This is also supported by the feature that almost the entire upper portion of the tower had no means of lateral/torsional support other than 1" x 6" diagonal let-in bracing in an east-west direction.

C. Description of Interior:

1. Floor Plans: The basic floor plan of this two-story building is square, with the slightly longer dimension (39'-2") running east and west. The original two vehicle parking bays of the first floor have been subdivided (no date) into smaller rooms. The second floor is subdivided into a kitchen, day room area, and sleeping room. The previously described 8'-0" square hose tower is positioned at the southeast corner of the building, attaching on the south elevation.

As previously mentioned, the space between this building and Building 99 to the south (about 16') has been enclosed at the first floor to provide a connecting foyer and restroom.

2. Stairways: A single stairway is in the southwest corner of the first floor for access to the second floor. Construction is entirely of wood.

3. Flooring: The first floor of Building 99A is concrete. The second floor is either carpet or vinyl tile over wood deck.

4. Walls and Ceiling Finish: Walls and ceilings of the first floor are either open frame or covered in tongue-and-groove wood vertical paneling (2½" wide fir?). Ceiling areas of the second floor are similar wood paneled (in day use area) or suspended acoustic tile (kitchen, television room, and dormitory). Walls of the second floor are typical vertical wood paneling.

5. Openings:

a. Doorways and Doors: Exterior door openings and doors have been described elsewhere. Interior doors are typically of wood with framed openings and trimmed in wood. Doors are not notable as they are of more recent vintage suitable for general interior applications.

b. Windows: Window openings and glazing have been described in detail elsewhere. Interior features are not notable.

6. Decorative Features and Trim: None.

7. Hardware: None of significance.

8. Mechanical Equipment:

a. Heating, Air Conditioning, and Ventilation: No mechanical heating, air conditioning, or ventilation systems are present within this building. Comfort heating is by fan-coil steam heaters. On the second floor, a large floor mounted steam radiator is still in operation. This radiator is similar in appearance to radiators that show up in early interior views of Building 99, and it is conjectured that this radiator is a remnant of early building heating.

b. Lighting: No drawings are available showing original lighting installation(s). Based upon intended use and period of construction, it is assumed that original lighting fixtures were incandescent fixtures with exposed wiring - common construction practice for this period. Later record drawings, dated 192(?) and 1957 reflect lighting upgrades by installing both newer incandescent and fluorescent fixtures. The work in the 1920s was judged to occur between 1923 to 1929, as the drawing was approved by Commander C. A. Carlson, Public Works Officer from 1923 through July 1929.

Captain Carl Alexis Carlson, Civil Engineering Corps, United States Navy, was born in Sweden on July 17, 1876. Immigrating to the United States at an early age, he attended BucTel College in Akron, Ohio and later graduated with an engineering degree from the Case School of Applied Science in Cleveland. He was working in the Architect's Office in the United States Treasury when he passed the entrance examination for the Civil Engineering Corps in May 1903. He served at Subic Bay in the Philippines from 1907 to 1909 and later was assigned to the Design Division of

the Bureau of Yards and Docks, where he was responsible for innovative designs in steel construction. Captain Carlson served three separate tours as Public Works Officer at Mare Island.

c. Plumbing: Original drawings show a small restroom and kitchenette installed on the second floor adjacent to the north wall. These are still in place.

In 1967, the alleyway between Buildings 99 and 99A (west of the hose tower) was enclosed to create a foyer between the two buildings and space for additional first floor restrooms. Each restroom was fairly small with only single lavatories, water closets, and shower stalls. One restroom, adjacent and under the southwest corner stairwell leading to the second floor, was for private use by occupants of the adjacent sleeping room.

All plumbing work is considered ordinary, reflecting commonly available materials and installation techniques of the period.

9. Original Furnishings: None available.

D. Site:

1. General Siting and Orientation: Building 99A is located on California Avenue facing generally in an easterly direction. North, as used in other descriptions found in this report, is considered "project north" and is in the direction California Avenue runs towards Building 121. The front elevation faces onto California Avenue and towards Building 117 across the street. Building 117 is a two-story production/work facility, erected in 1982, or more current steel frame/prefinished metal sheathed construction. Approximately 650 feet east of Building 99A is the Berth 10 quay wall and the Napa River (Mare Island Strait). The entire site is within the security-regulated Controlled Industrial Area (CIA) of the Shipyard. Other than for adjacent structures, such as Building 99 to the south, the areas around Building 99A are flat and covered by asphalt paving. Site sketches are attached that show the site of Building 99A and related Building 99.

2. Historic Landscape Design: No landscaping exists.

3. Outbuildings: One outbuilding is associated with Building 99A - Building 99, which is to the immediate south of Building 99A. Building 99 is part of the Central Fire Station Complex and separate HABS documentation has been prepared for this building (see HABS No. CA-2294).

PART III - SOURCES OF INFORMATION:

A. Architectural Drawings: Included in the photographic documentation are photocopies of record drawings for Building 99A. The earliest drawing is dated 1905. Other drawings of various dates are included showing subsequent modifications. All drawings are in the possession of the Public Works Department's Plan Files at Mare Island Naval Shipyard.

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B. Historic Views: Included in the photographic documentation are historic views of this building. Original negatives are in the possession of the Shipyard Historian (Ms. Sue Lemmon, Code 100H).

C. Interviews: Other than a brief session with Ms. Sue Lemmon, Shipyard Historian, on June 15, 1990, no other interviews were conducted or deemed necessary.

D. Bibliography:

1. Primary and Unpublished Sources: None.

2. Secondary and Published Sources:

- a. "Historical Facts of Mare Island Fire Department - Mare Island Naval Shipyard" (November 1970).
- b. "Historical Survey - Mare Island Naval Shipyard" (1986); prepared by Mighetto and Youngmeister, Architects and Planners, with Kenneth Cardwell, Historical Consultant.
- c. "Sidewheelers to Nuclear Power, A Pictorial Essay Covering 123 Years at the Mare Island Naval Shipyard" (1977); Sue Lemmon and E. D. Wichels; published by Leeward Publications, Inc.; Library of Congress Catalog No. 77-90050.
- d. "A Long Line of Ships, Mare Island's Century of Naval Activity in California" (1954); Arnold A. Lott, LCDR, USN (Retired); published by the George Banta Publishing Company.

NOTE: All of the above sources are currently retained in the Public Works Engineering Division, Mare Island Naval Shipyard.

E. Likely Sources Not Yet Investigated: None recommended.

F. Supplemental Material: None included.

PART IV - PROJECT INFORMATION:

Building 99A is scheduled for demolition upon availability of funding. Operations as a fire station will be terminated once Military Construction Project P-250 is completed and occupied, estimated to occur in the third quarter of 1991.

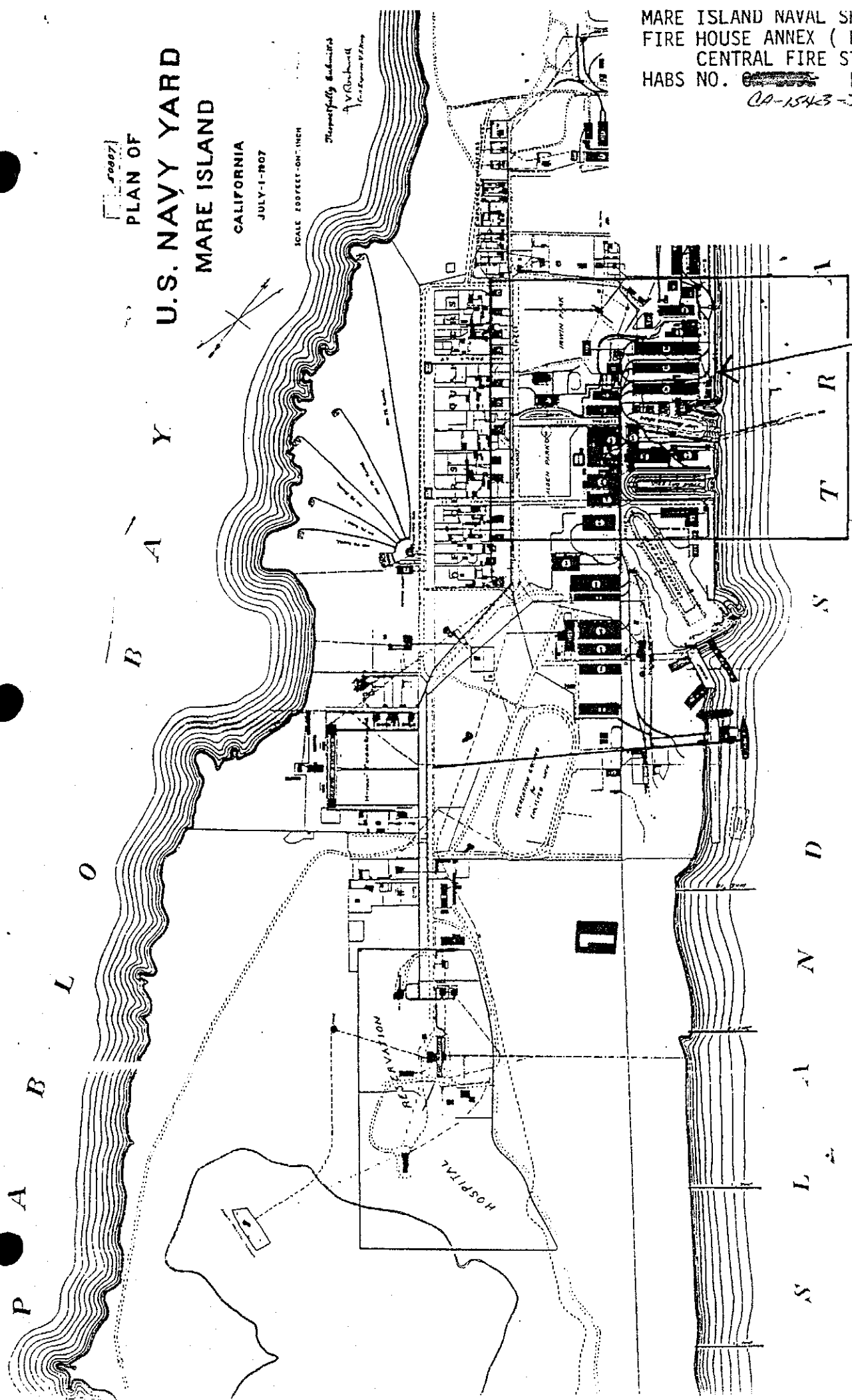
This survey and documentation has been prepared to comply with mitigative requirements established by a Memorandum of Understanding between the United States Navy, the California State Historic Preservation Officer, and the Advisory Council on Historic Preservation executed in 1989.

PLAN OF
U.S. NAVY YARD
MARE ISLAND
CALIFORNIA
JULY-1-1907

SCALE 100 FEET-ON-1 INCH

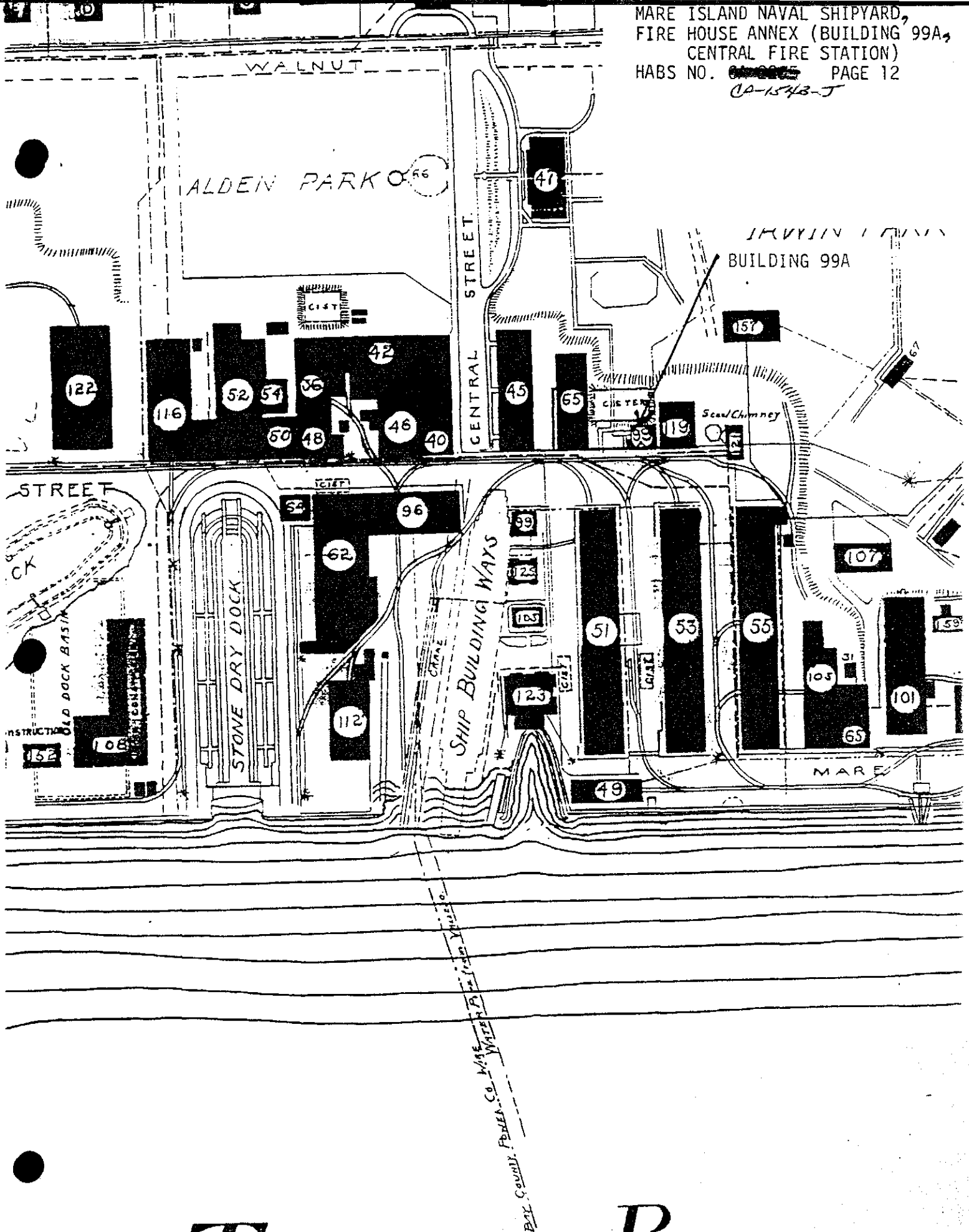
Thompson's Submarine
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1st & 2nd Regts. U.S. Army

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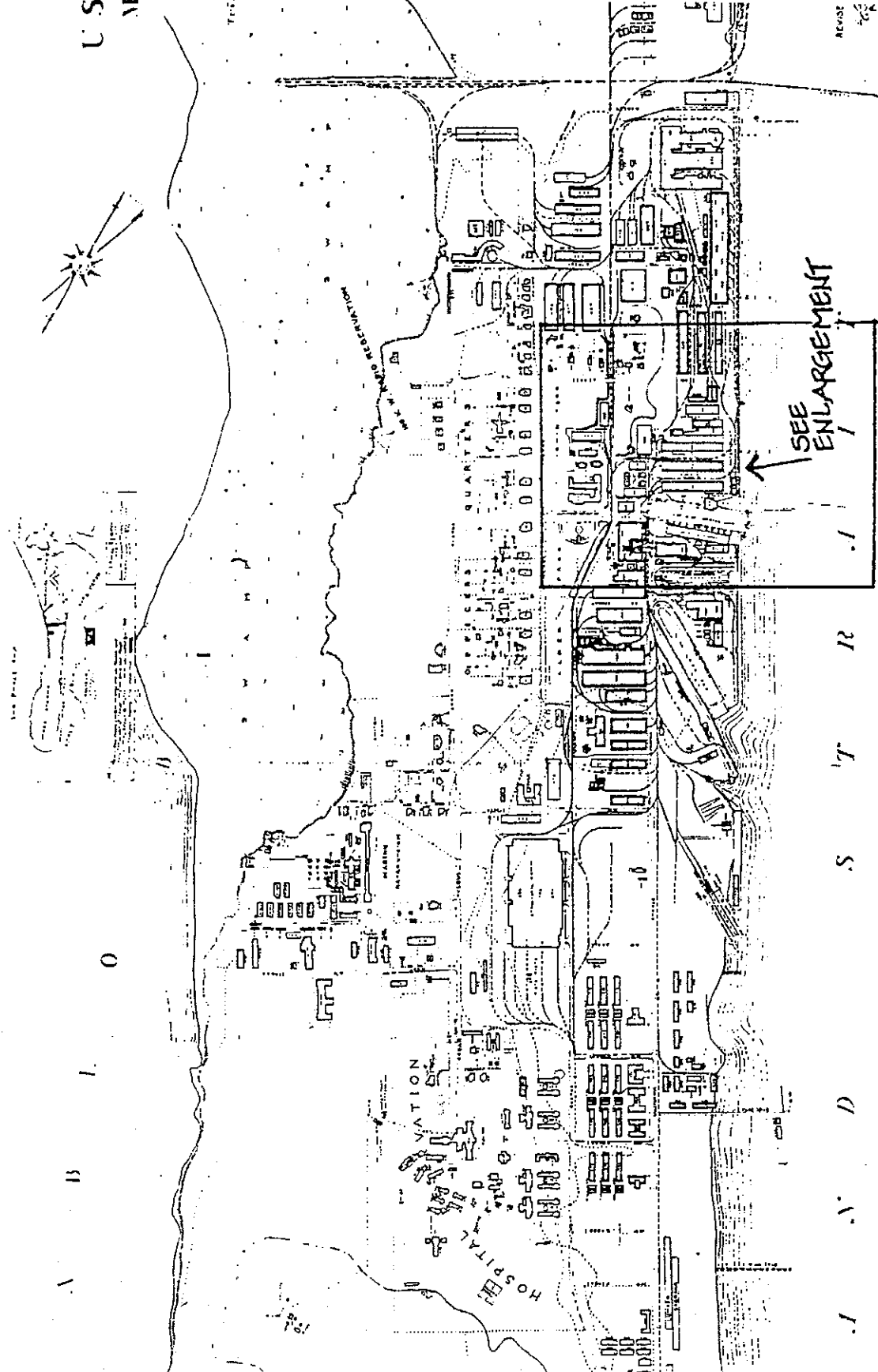
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PLAN OF
U.S. NAVY YARD
MARINE ISLAND

CALIFORNIA

JULY 1948

REVISIONS TO HABS NO. 1543-J

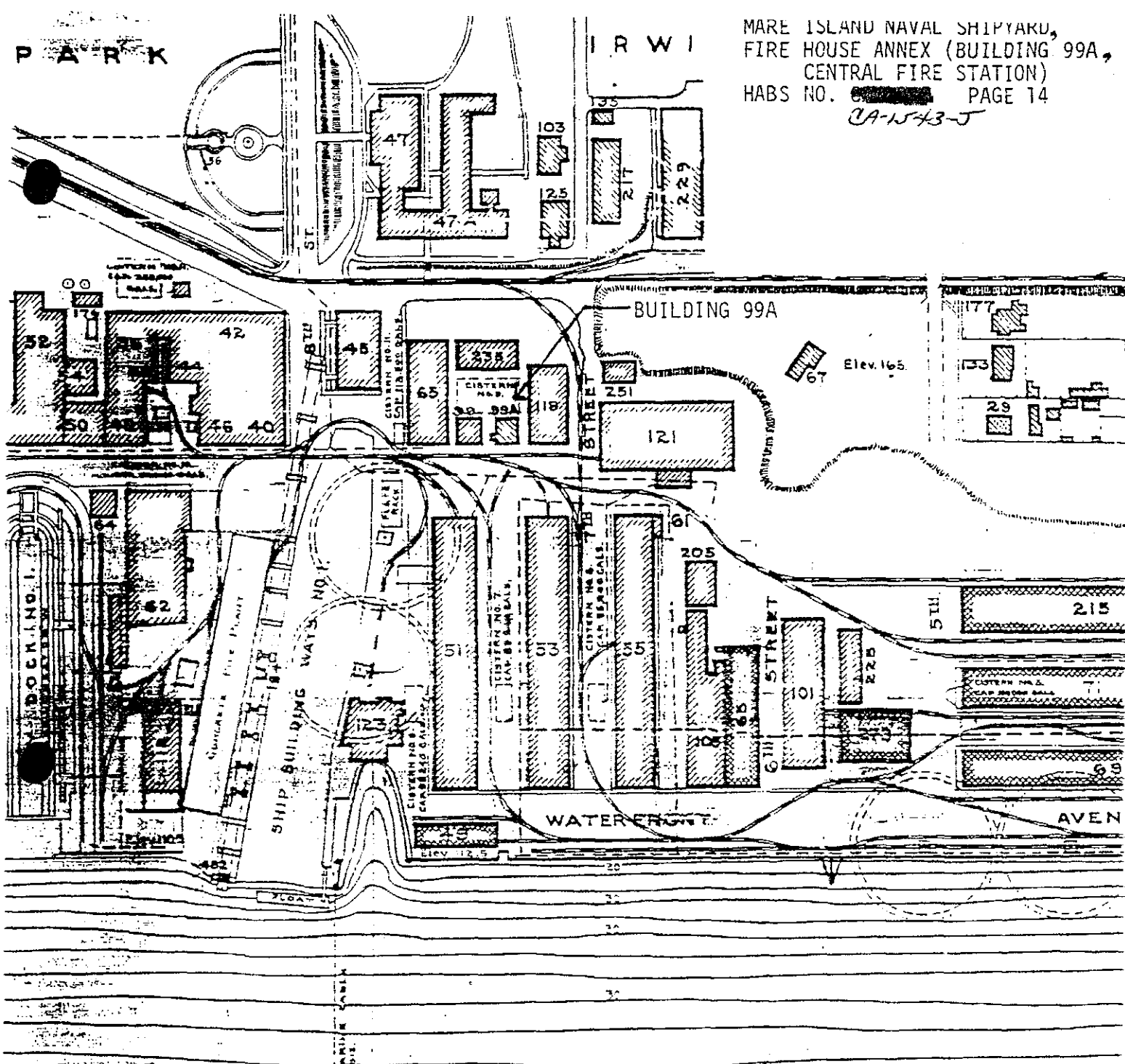


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